
EAGLE/MSR/BOSS/USAFORGED WHEEL INSTALLATION INSTRUCTIONS:

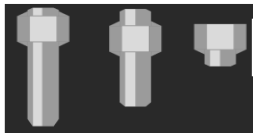
Prior to mounting a tire on the wheel:

1. Pre-fit each wheel (individually) and verify that:
 - there is a flush fit between the wheel mounting surface and disc or brake drum.
 - no part of the wheel, when rotating, will come into contact with the disc brake calipers, suspension components, and/or body parts.
 - no component (tire/wheel/accessories) when installed will violate any local, state, or federal safety laws.
2. Verify that all mounting studs (front and rear) will have proper thread engagement (at least one and a half times the stud diameter), and do not interfere with the lug holes.

Check: Inspect studs before installation. If corrosion beyond reasonable repair, stripped threads, or fracture is detected, replace the damaged studs. Do not lubricate the threads.

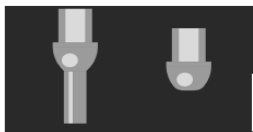
Warning! Spring clips are often overlooked. They must be removed to prevent them from interfering with the wheel sitting flush against the mounting surface, which will give a false torque reading and will result in the lug nuts becoming loose. Some manufacturers (for example Hyundai) do not use spring clips, but nuts designed to hold the break assembly together. THESE NUTS MUST NOT BE REMOVED. Specially machined wheels are available for these applications.

3. Verify that the type of fastener to be used:
 - will not interfere with cover cap supplied with the wheel.
 - is of the proper type. One of these three is required:
 - “mag” type
 - 60° conical seat
 - ball seat (V.W./Porsche/Mercedes)



“MAG” TYPE

60° CONICAL SEAT



BALL SEAT TYPE

Note: Dually wheels may use either the “mag” type fastener or the 60 degree conical type, depending on style.

- will not bottom on the stud before fastening the wheel to the vehicle. Excessive length will bottom out in a closed end lug, preventing the wheel from being properly torqued to the mounting surface on the brake drum or disc.
- Has enough thread engagement – at least 1 ½ times the stud diameter

Warning! Do not use spacers to resolve any clearance problem. If spacers are used, user bears all responsibility.

4. Use the recommended valve stem.
5. Use the vehicle and tire manufacturers recommendations for proper rim diameter and width selection. Then check the load rating of the tire and vehicle (all axles) and compare with that of wheel. Do not use wheel with any tire or on any vehicle that exceeds load range specification as marked on the wheel, or tires that exceed the maximum allowable tire diameter as specified in the current technical specifications page for the product. Technical specifications are available on-line at <http://www.americaneaglewheel.com/>. The maximum tire diameter data is also available on the wheel’s original wheel carton label. Make sure that the wheel diameter and the tire’s rim diameter are the same before mounting. **Any tire and wheel mismatch will result in tire or wheel failure causing serious injury or death.**

Warning! Exceeding the maximum load rating or maximum tire diameter of the wheel is unsafe and could result in wheel failure, resulting in serious injury.

6. Do not inflate tire in excess of 60 p.s.i. (40 p.s.i. in California) while seating the tire bead seat. If tire will not seat at these pressures, check for obstructions, proper use of mounting lubricants or possible wheel/tire diameter mismatch. After mounting, make sure to inflate tires to the appropriate operational pressure.
 7. Tighten lug nuts in a progressive criss-cross manner. Air or impact wrenches are not recommended, due to the possibility of irregular or over tightening.
- Use the torque specifications supplied by the vehicle manufacturer. If not available, refer to the following general torque guide:
 - 3/8” stud dia.: 35-45 ft. lbs.
 - 9/16” stud dia.: 95-115 ft. lbs.
 - 7/16” stud dia.: 55-65 ft. lbs.
 - 12 mm stud dia.: 70-80 ft lbs.
 - 1/2” stud dia.: 78-85 ft. lbs.
 - 14 mm stud dia.: 85-95 ft. lbs.
 - The installer must instruct the customer to re-torque or return immediately after 25 miles, 100 miles maximum, so installer can re-torque to proper vehicle specifications.

Warning! Never use fewer nuts than the wheel and vehicle was designed for.

8. Check for proper clearance and rotation of tire/wheel assembly/assemblies by turning front wheels from side to side, and visually estimating possible tire to fender well interference throughout the suspension stroke. After removing the vehicle from the rack, drive vehicle at very slow speed (10 mph) to verify that no interference exists. Correct if any.
9. It is the owner’s responsibility to inspect and re-torque the lug nuts. Recheck lug nut torque within the first 25 to 100 miles driven, and periodically thereafter. **Failure to re-check lug nut torque may result in a serious accident.**

Warning! Failure to follow above instructions may result in serious bodily harm. Only those qualified should install this product.

DUALLY WHEEL INSTALLATION INSTRUCTIONS.

The **16x6** Dually wheels are for use on most Chevy, Ford or Dodge ¾ and 1 ton vehicles with factory installed 16x6 or 16x6.5 duals, manufactured after January 1st, 1984, but subject to the following additional installation requirements/conditions:

- use tubeless tires only, maximum allowed size: 235/85R16.
- do not mount larger (dia or width) tires on these wheels.
- do not dual two aluminum wheels. There is insufficient stud/nut engagement.
- use the vehicle manufacturers supplied steel inner wheel (16x6 or 16x6.5) for the inner rear wheel.
- use the specified lug nut and washer type. Verify that the lug nut will not bottom on the shoulder of the stud.
- do not use nut plates.
- for use only on vehicles with a manufacturers GVWR of 12,500lbs. or less (or a maximum Front GAWR of 5,200lbs.)

For part number availability and application details contact you local distributor.

- The **17x6** and **17x6.5** Dually wheels are for use on 2003 and later Dodge, 2005 and later Ford and 2007 and later Chevy vehicles with factory installed 17x6 or 17x6.5 dual rear wheels. Installation requirements/conditions are the same as for the 16x6 Dualls with the following remarks:
- maximum allowed tire size is 235/80R17
 - use 17x6 or 17x6.5 steel dual wheel for inner rear wheel

- The **19.5x6** Dually wheels are for use on 1999 and later Ford F450/550 trucks with manufacturers maximum “GVWR” of 13,500 lbs or less. They can also be used on vehicles with factory installed 16” or 17” Duals when the proper bolt pattern is available. The installation requirements/conditions are the same as for the 16x6 Duals with the following remarks:
- maximum allowed tire size: 245/75R19.5
 - use 19.5x6 steel dual wheel for inner rear wheel.

20x7.5 Dually wheel installation instructions, requirements and conditions are provided in a separate document, included in the wheel box.

DUALLY CAPS

Derby style center cover caps are intended to be installed from the outside face of the wheel (curb side), and be clamped by the lug nut washer. If they are installed from the rear side, they may interfere with the flush mounting of the wheel. **This may result in loss of lug nut torque and separation of the wheel from the vehicle, resulting in serious bodily injury or death!**

Important Tip!

When installing hub-centric and non-hub-centric American Eagle/MSR Dually wheels, all 8 lug nuts must be fastened by hand wrench until the wheel rests flush against the vehicle’s mounting pad. Only then, should a torque wrench be used to tighten the lug nuts. **No impact tools are to be used.**

EAGLE/MSR/BOSS/USAFORGED HUB RING INSTALLATION PROCEDURES

When using EAGLE/MSR/BOSS/USAFORGED hubcentric rings:

1. Select the proper hub centric ring for your application. Prior to installing the rings in the wheels, test fit the hub centric rings on all locations where it will be used on the vehicle. The ring must not bind. A slip fit is acceptable.
 2. Place insert squarely in the rear center hole (with chamfered surface facing upwards) and firmly push in until the hub centric ring is seated. (a light tapping around the circumference of the insert may be required.)
 3. When installed properly, the hubcentric ring will be slightly below the wheel mounting face, and the hubcentric rings fingers will have securely engaged into the groove in the wheel. This flush fit is critical. **Failure to install and inspect correctly may result in serious bodily injury or death**
 4. If the hubcentric ring needs to be removed, use a small screwdriver to pry the hubcentric ring out.
 5. Once the above are satisfied, proceed with mounting wheels. Follow mounting instructions as detailed above. EAGLE/MSR/BOSS/USAFORGED hubcentric rings are designed specifically for use in EAGLE/MSR/BOSS/USAFORGED wheels.
 6. Do not use any other brand of hubcentric rings in EAGLE/MSR/BOSS/USAFORGED wheels. Failure to attain proper fit between wheels and vehicle may result in serious bodily harm.
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AFTER INSTALLATION:

Make sure the new lug nuts are compatible with the vehicle's spare. If not, make sure that at least one set of the vehicles original lug nuts is kept with the spare. Check if the lug wrench kept in the vehicle is compatible with the new lug nuts and wheels. Notify the customer of any interference or inconsistency.

GENERAL WHEEL MAINTENANCE:

Important: All warranty claims will be voided if improper maintenance or improper cleaning agents are used. Your new wheels do require care to maintain their factory appearance.

Regular Cleaning: Typical road soils tend to trap moisture that can cause corrosion over a period of time. Brake dust, caused by friction of your car's braking system, is corrosive and can cause pitting of the wheel finish. To avoid marring of your wheels, any soils gathered on your wheels must be removed regularly, possibly weekly, depending on your driving habits.

PVD coated wheels: The finish on these wheels is obtained by using a coating process that gives the luster of chrome with the durability of powder coat.

Important: DO NOT USE traditional acid based chrome cleaners on these wheels. Use only SOAP AND WATER.

Use of proper cleaning agents: after driving your vehicle, always allow your wheels to cool down before spraying water on them. Use a soft non-abrasive cloth, and never scouring pads or steel wool, to clean your wheels. We recommend that you clean your wheels with a mild dishwashing soap and water. There are commercially available wheel cleaners, but we urge extreme caution regarding their use, since they tend to be acid or lye based. If you use automatic car washes, ask the caretakers not to use steam cleaners or strong chemicals to clean your wheels. The later can cause permanent staining or corrosion. Use caution when cleaning tires with steel wool or a bristle brush. These types of abrasive materials must not come in contact with the wheels. In addition to regular cleaning, polished wheels require frequent maintenance using a good quality aluminum polish to maintain their factory appearance. After cleaning chrome plated wheels, always apply a coat of soft cream wax to help prevent surface corrosion. Additional care and maintenance suggestions and FAQ's may be found on the product line web sites.

Warning! If you hit a hard object (curb, pothole, etc.) or have an accident and have visual damage, always have your wheels inspected for a fracture by a distributor. If fracture is found, replace wheel immediately.

EAGLE/MSR/BOSS/USAFORGED LIMITED WARRANTY

- EAGLE/MSR/BOSS/USAFORGED wheels are warranted at time of shipment that the wheel will be free from defects in material and workmanship under normal and reasonable use. Not for on or off road racing.

Coverage:

- Structural: lifetime warranty
- PVD coated wheels: 3 year warranty according to the PVD coater's terms and conditions.
- Machined / Superfinished / Polished wheels: no finish warranty applies to these uncoated areas.
- Chrome wheels: EAGLE/MSR/BOSS/USAFORGED offers a one year warranty from date of purchase on chrome plated wheels, subject to the conditions stated above and the following:
 - Wheels were supplied by EAGLE/MSR/BOSS/USAFORGED as plated.
 - proper tire mounting equipment (non front flange contact) was used during installation.
- All other finishes: one year from original date of purchase, subject to the conditions included herein.

This warranty shall not apply to:

- any defect, malfunction or failure caused by damage to wheels in transit, off-highway use, during tire installation, or by abuse, misuse, accident or negligence.
- wheels that have been altered or repaired.
- wheels that have not been installed in accordance with EAGLE/MSR/BOSS/USAFORGED alloys installation and application instructions, or installed on incorrect tire sizes or used with excessive vehicle loads.
- wheel corrosion or cosmetic flaws occurring after purchase due to chemicals, caustic cleaning agents, climate conditions, impact or neglect.
- cosmetic defects in wheels that have been mounted or have been sold as blemished product.
- defects of which EAGLE/MSR/BOSS/USAFORGED or the retailer has not received timely notification.

Additional terms:

- EAGLE/MSR/BOSS/USAFORGED does not cover expenses incurred for freight, removal and or installation labor, loss of vehicle use, loss of time, inconvenience or any other consequential damages. If you have or suspect that you have a defective product, return the product, freight prepaid, to the selling outlet or to an EAGLE/MSR/BOSS/USAFORGED distribution outlet, complete with your name, address, telephone number, place and date of purchase, and description of the defect. We will, upon receipt of the product, examine the product, and notify you of our findings. If defective and covered under this warranty, we will ship replacement product to you, freight prepaid. If not defective, or the condition is not covered by this warranty we will return the product to you as received, freight collect.
- some states do not allow limitations on how long an implied warranty lasts and/or does not allow exclusion or limitation on incidental or consequential damages. So the above limitations on implied warranties and/or the limitation or exclusion of certain damages may not apply to you. This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

SAFETY CHECKLIST

This safety checklist must be reviewed after installation. It is not designed to replace the complete instruction included within this manual, but to verify the major safety points were inspected. If any item was not performed and checked, the installer must revise the omitted point before releasing the vehicle to the customer.

- Load rating of wheel is sufficient for vehicle.
- Maximum tire diameter rating of the wheel is not exceeded.
- Tire's rim diameter specification matches that of the wheel. For example, a 16" tire is to be used on a 16" wheel, and not on a 16.5" wheel.
- No obstruction (spring clip retainers, rivets or weights) are present that prevent the flush seating of the wheel on the mounting surface.
- Accessories are correct for the application (lug nut type is correct, sufficient thread is engaged, no bottoming out is occurring, the correct hubcentric ring is used for the application)
- Cover assembly and hubcentric ring (if applicable) are correct for the application and do not protrude beyond the mounting surface and prevent the wheel from seating flush.
- All threaded studs are free of corrosion, fractures, etc.
- Wheel and tire has sufficient clearance from brake, fender, or any suspension components.
- All lug nuts are tightened to the proper torque specification with a calibrated torque wrench.
- Proper torque for application: _____ ft. lbs.
- The customer is instructed to re-torque immediately after 25 miles or return to the shop so that the installer can re-torque.
- The customer is instructed on warranty and how to clean and maintain finish on the wheels
- The customer is instructed on the need for any additional tools; i.e. screw driver for cap or lug wrench if style of lugs is different from the original.

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INSTALLATION GUIDE AND WHEEL OWNER'S MANUAL

INSTALLATION INSTRUCTION
GENERAL MAINTENANCE
WARRANTY

Installer

Please give this document to the customer after installing and reviewing re-torquing requirements.

Customer

Please keep this document with the vehicle owner's manual, so it may be passed on and used by subsequent owners.